

LECTOTYPE DESIGNATIONS FOR VARIOUS SPECIES
OF NORTH AMERICAN *PITYOPHTHORUS* EICHHOFF
(COLEOPTERA: SCOLYTIDAE)

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ABSTRACT

Lectotypes are designated for the following species of North American *Pityophthorus*: *annectans* LeConte, *atratus* (LeConte), *bassetti* Blackman, *blandulus* Schedl, *cacuminatus* Blandford, *confinis* LeConte, *confusus* Blandford, *consimilis* LeConte, *deletus* LeConte, *digestus* (LeConte), *diglyphus* Blandford, *glabratulus* (Schedl) (new combination), *guatemalensis* Blandford, *hirticeps* LeConte, *liquidambaris* Blackman, *natalis* Blackman, *nigricans* Blandford, *nitidulus* (Mannerheim), *nocturnus* Schedl, *obtusipennis* Blandford, *occidentalis* Blackman, *pellitus* Schedl, *politus* (Blandford) (now in *Araptus*), *pulicarius* (Zimmermann), *pullus* (Zimmermann), *puncticollis* (LeConte), *scabridus* Schedl, *schwerdtfegeri* (Schedl), *scriptor* Blackman, and *subsimilis* Schedl.

Many species of *Pityophthorus* described by the early authors do not have definite type specimens designated for them. Since I am presently preparing a monograph of this genus in North and Central America, it is desirable that type designations be made in order to definitely establish each name. The original purpose of the present study was to designate a type for each species of North American *Pityophthorus* that does not have a definite holotype. However, the types of the 7 species of *Pityophthorus* described by Eichhoff were apparently destroyed in the destruction of Hamburg, Germany during World War II. Specimens that could serve as neotypes have been located for 4 of Eichhoff's species, but since neotypic specimens of 3 species are still unlocated, I have left a discussion of the Eichhoff types out of this paper.

The species are listed in alphabetical order under each author's name.

Species described by M. W. Blackman

M. W. Blackman described about 80 species of *Pityophthorus*, all but 5 of which have proper holotype designations. All lectotypes are in the United States National Museum of Natural History, Washington, D. C.

P. bassetti: 1920, p. 1. Described from an unrecorded number of specimens. Lectotype (male), here designated, is labelled: Pitkin, Colo./M. W. Blackman, collector/706/TYPE/Type No. 56924 U.S.N.M./LECTOTYPE *Pityophthorus bassetti* Blackman, D. E. Bright, 1976.

P. liquidambaris: 1921, p. 4. "Described from a long series of specimens". Lectotype (female), here designated, is labelled: Mound, Louisiana, 3-2-20/M. W. Blackman, collector/N.Y.S. Coll. For. Lot. No. Mi 149/TYPE/Type No. 56913 U.S.N.M./LECTOTYPE *Pityophthorus liquidambaris* Blackman, D. E. Bright, 1976.

P. natalis: 1921, p. 8. Described from a series of 27 specimens. Lectotype (male ?), here designated, is labelled: Mississippi A&M, 11-7-1919/M. W. Blackman, collector/N.Y.S. Coll. For. Lot. No. Mi 22/TYPE/Type No. 56911 U.S.N.M./LECTOTYPE *Pityophthorus natalis* Blackman, D. E. Bright, 1976.

P. occidentalis: 1920, p. 4. Described from an unrecorded number of specimens. Lectotype (male), here designated is labelled: Pitkin, Colo., 14-5-15/Bassett, coll./N.Y.S. Coll. For. Lot No. 698/o TYPE/Type No. 56920 U.S.N.M./LECTOTYPE *Pityophthorus occidentalis* Blackman, D. E. Bright, 1976.

P. scriptor: 1921, p. 7. Described from a series of 70 specimens. Lectotype (female), here designated, is labelled: Mississippi A&M, 2-14-1920/M. W. Blackman, collector/N.Y.S. Coll. For. Lot No. Mi 132/Type *Pityophthorus scriptor* Blackman/Type No. 41763 U.S.N.M./LECTOTYPE *Pityophthorus scriptor* Blackman, D. E. Bright, 1976.

Species described by W. F. H. Blandford

In the *Biologia Centrali-Americana*, Blandford described 17 species in *Pityophthorus*. One species, *P. deyrollei*, was transferred to *Thamnophthorus* by Schedl (1938) and subsequently to *Araptus* by Wood (1974), who designated a lectotype at the same time. Eight of Blandford's species were described from 1 specimen each and therefore have holotypes. Wood transferred *P. politus* (1973) and *P. confinis* (1975) to *Araptus*, and a lectotype for *P. politus* is designated herein. This and the remaining *Pityophthorus* species are listed below. All type material is in the British Museum (Natural History), London.

P. cacuminatus: 1904, p. 238. Three specimens are in the type series. Lectotype (female), here designated, is labelled: Type (orange bordered circle)/S. Geronimo, Guatemala, Champion/B.C.A. Col. IV-6, *Pityophthorus cacuminatus* Blandf./LECTOTYPE *Pityophthorus cacuminatus* Blandford, D. E. Bright, 1976.

P. confusus: 1904, p. 237. Described from 3 specimens. Lectotype (female), here designated, is labelled: Type (orange bordered circle)/S. Geronimo, Guatemala, Champion/B.C.A. Col. IV-6, *Pityophthorus confusus* Blandf./LECTOTYPE *Pityophthorus confusus* Blandford, D. E. Bright, 1976. One syntypic specimen with identical data is labelled as a paralectotype.

P. diglyphus: 1904, p. 240. Four specimens are in the type series. Lectotype (male), here designated, is labelled: Co-Type (yellow bordered circle)/Quiche Mts., 7-9000 ft., Champion/B.C.A. Col. IV-6, *Pityophthorus diglyphus* Blandf./*Pityophthorus diglyphus* Bld. (In Blandford's (?) handwriting, label upside down)/LECTOTYPE *Pityophthorus diglyphus* Blandford, D. E. Bright, 1976. The other 3 specimens, all from Balhen, Vera Paz, are labelled paralectotypes.

P. guatemalensis: 1904, p. 239. Described from a series of 20 specimens. Lectotype (female), here designated, is labelled: Co-Type (yellow bordered circle)/Guatemala City, Champion/F. W. Sampson coll., BM 1926-482 (label upside down)/B.C.A. Col. IV-6, *Pityophthorus guatemalensis* Blandf./*Pityophthorus guatemalensis* Bld. (in Blandford's (?) handwriting, label upside down)/LECTOTYPE *Pityophthorus guatemalensis* Blandford, D. E. Bright, 1976. Thirteen additional specimens are labelled as paralectotypes.

P. nigricans: 1904, p. 236. Described from 3 specimens. Lectotype (female), here designated, is labelled: Quiche Mts., 7-9000 ft., Champion/B.C.A. Col. IV-6, *Pityophthorus nigricans* Blandf./*Pityophthorus nigricans* Blandf. (in Blandford's handwriting, label upside down)/LECTOTYPE *Pityophthorus nigricans* Blandford, D. E. Bright, 1976. Two other specimens bear the same data are designated as paralectotypes.

P. obtusipennis: 1904, p. 240. The type series consists of 2 specimens. Lectotype (male), here designated, is labelled: Type (orange bordered circle)/Balheu, Vera Paz, Champion/B.C.A. Col. IV-6, *Pityophthorus obtusipennis* Blandf./LECTOTYPE *Pityophthorus obtusipennis* Blandford, D. E. Bright, 1976.

P. politus: 1904, p. 244. Described from 2 specimens. Lectotype (sex undetermined) here designated, is labelled: Syn-Type (blue bordered circle)/small green rectangle with MPX/Ex coll. A. Deyrolle/Mexico/F. W. Sampson coll. BM 1926-482 (label upside down)/*P. politus*/Neodryocoetes (*Pityophthorus*) *politus* Blandf. Det K. E. Schedl/LECTOTYPE *Pityophthorus politus* Blandford, D. E. Bright, 1976. The other specimen is labelled as a paralectotype.

This species was transferred to *Araptus* by Wood (1973).

Species described by J. L. LeConte

LeConte described 12 species, the names of which are now either valid or synonyms in *Pityophthorus* as the genus is now recognized. Numerous other species were described or placed in *Pityophthorus* by LeConte but have now been transferred to other genera. No holotypes were designated in LeConte's original descriptions. The entire collection was examined and the type specimens labelled as either holotypes or lectotypes. Eight species that require the formal designation of lectotypes are listed below. All type material is in the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts.

P. annectans: 1878a, p. 622. Described from an unrecorded number of specimens. Three specimens are under this name in the collection. The lectotype (female), here designated, is the first specimen and is labelled: Tampa, Fla. 1-4/1492/Type 1283/*P. annectans* Lec./LECTOTYPE *Pityophthorus annectans* LeConte, D. E. Bright, 1976. The other two specimens are labelled as paralectotypes.

P. atratulus: 1868, p. 156. Described from 2 specimens and placed in *Cryphalus*. The lectotype (sex undetermined), here designated, is labelled: a gold disk/Type 1000/*C. atratulus* Lec./nitidulus 4/LECTOTYPE *Cryphalus atratulus* LeConte, D. E. Bright, 1976. The second specimen is labelled as a paralectotype.

This species is a synonym of *P. nitidulus* (Mann.).

P. confinis: 1876, p. 354. Described from a series of 2 specimens. The lectotype (female), here designated, is labelled: Cala./Type 1030/*P. confinis* Lec./LECTOTYPE *Pityophthorus confinis* LeConte, D. E. Bright, 1976. The second specimen is labelled as a paralectotype.

P. consimilis: 1878a, p. 622. LeConte did not record the number of specimens in the original series, however 3 specimens are presently in the collection. The first specimen is hereby designated the lectotype (male), and is labelled: Marquette, Mich., 1-7/[female sign] (error)/Type 1284/*P. consimilis* Lec./LECTOTYPE *Pityophthorus consimilis* LeConte, D. E. Bright, 1976. The 2 remaining specimens are designated as paralectotypes.

P. deletus: 1878b, p. 519. Described from a series of 5 specimens, of which 3 specimens and an empty pin remain in the collection. The first specimen is hereby designated the lectotype and is labelled: Veta Pass, Colo., 21-6/Type 1286/668/*P. deletus* Lec./LECTOTYPE *Pityophthorus deletus* LeConte, D. E. Bright, 1976. The remaining specimens are designated as paralectotypes.

P. digestus: 1874, p. 71. Originally described in *Cryphalus*. Ten specimens are in the collection, 8 of these are mounted on one pin, on 4 cards, 2 specimens per card. The lectotype, here designated, is the left specimen on the top card on the first pin. There is a small black dot just behind the elytral apex of the lectotype which serves to definitely indicate which specimen is the type. The pin bears the labels: Type 997/*C. digestus* Lec./LECTOTYPE-Top left specimen—*Cryphalus digestus* LeConte, Bright, 1976. A paralectotype label has been placed on the pin for the remaining 7 specimens. Two additional specimens are also labelled as paralectotypes.

P. hirticeps: 1878a, p. 665. The size of the type series was not given by LeConte, however, 2 specimens are presently in the collection. The first specimen (male), hereby designated the lectotype, is labelled: Marquette, Mich. 3-1/female (error)/Type 1285/*P. hirticeps* Lec./LECTOTYPE *Pityophthorus hirticeps* LeConte, D. E. Bright, 1976. The remaining specimen is designated as a paralectotype. LeConte erred in designating the sex of the specimen labelled as lectotype.

This species is a synonym of *P. pulchellus* Eichhoff.

P. puncticollis: 1874, p. 71. LeConte described this species in *Cryphalus* from 1 specimen from California and at least 1 specimen from Texas. There are 4 specimens in the collection now, none of which is from Texas, 1 is from California and the other 3 are from Colorado. These latter 3 have obviously been added subsequent to LeConte's description. The whereabouts of the Texas specimen(s) is unknown.

The first specimen (female) is hereby designated the lectotype and is labelled: Cala./Type 999/*C. puncticollis* Lec./LECTOTYPE *Cryphalus puncticollis* Le-

Conte, D. E. Bright, 1976. The other 3 specimens are not given any type designations and bear only my identification label in addition to the original labels.

This species is a synonym of *P. nitidulus* (Mann.).

Species described by C. G. Mannerheim

Only one species of North American *Pityophthorus* was described by Mannerheim. The type material is in the Zoological Museum, Helsinki, Finland.

P. nitidulus: 1843, p. 298. Described in *Bostrichus* from an unrecorded number of specimens. Three specimens are in the Mannerheim collection. The first of these, hereby designated the lectotype, is labelled: Blaschke/Sitka/coll. Mannerh./Bostrichus nitidulus Mannerh. n. sp., Blaschke-Sitka/Mus. Hifors. Spec. typ. No. 1186, Bostrichus nitidulus Mann./LECTOTYPE Bostrichus nitidulus Mannerheim, D. E. Bright, 1974. The other 2 specimens were collected by Frankhauser and may not be part of the original type series. Mannerheim gave a range of measurements, indicating he had more than 1 specimen and stated that Blaschke was the collector; Frankhauser is not mentioned. Only 1 specimen (the lectotype) bears a Blaschke label. It is obviously the specimen that Mannerheim considered the type. The other 2 specimens could have been added at a later date or Mannerheim could have given only the collector of the specimen he considered the type.

Species described by K. E. Schedl

Schedl has described about 14 species, the names of which are either valid or synonyms of North American *Pityophthorus*. Several additional species were described in *Pityophthorus* but have now been transferred to other genera. Only 7 species need to have lectotypes designated for them and they are listed below. Lectotypes are in the Schedl collection, Lienz, Austria (eventually to be deposited in the Vienna Museum) except for the type *P. nocturnus*, which is in the British Museum (Natural History).

P. blandulus: 1956, p. 19. Described from an unrecorded number of specimens. Three specimens labelled as type and paratypes have been seen. The lectotype (female), here designated, is labelled: Las Trojadas (2), Pin. rud.; 20-9-1951, Guatemala, leg. F. Schwerdtfeger/[female sign]/75/Type *Pityophthorus blandulus* Schedl/LECTOTYPE *Pityophthorus blandulus* Schedl, D. E. Bright, 1976. The 2 other specimens bear the same data and are paralectotypes but are not so labelled.

P. glabratulus: 1956, p. 26. Described in *Ctenyophthorus* but here transferred to *Pityophthorus* (**new combination**). Six specimens from the type series have been examined. The lectotype (female), here designated, is labelled: 58, Quezaltenango, Pin. rud.; 6-9-1951, 2750m, Guatemala, leg. F. Schwerdtfeger/[female sign]/Type *Ctenyophthorus glabratulus* Schedl/LECTOTYPE *Ctenyophthorus glabratulus* Schedl, D. E. Bright, 1976. The remaining specimens are labelled as paralectotypes; 2 are in Schwerdtfeger's collection and 3 are in Schedl's collection.

P. nocturnus: 1938, p. 185. The British Museum and the Schedl collection both contain 2 specimens from the type series. Since the specimens were collected by Champion and originally belonged to the BM(NH), I hereby designate the first specimen in the BM(NH) as the lectotype. This specimen is labelled as follows: Type (a red bordered circle)/San Geronoma, Vera Paz, Champion/Godman-Salvin coll./*Pityophthorus nocturnus* [male sign], n.sp., Det. K. E. Schedl/LECTOTYPE *Pityophthorus nocturnus* Schedl, D. E. Bright, 1975. The remaining specimens are labelled as paralectotypes.

P. pellitus: 1956, p. 23. The Schedl collection contains 2 specimens labeled "Type" and the Schwerdtfeger collection contains 3 specimens, 1 of which is labelled "cotype". I hereby designate the female in the Schedl collection as the lectotype. It is labelled: Quezaltenango, Pin. rud., 6-9-1951, 2350 m., Guatemala, leg. F. Schwerdtfeger/[female sign]/57/Type *Pityophthorus pellitus* Schedl/LECTOTYPE *Pityophthorus pellitus* Schedl, D. E. Bright, 1976. The other specimens in the Schedl and Schwerdtfeger collections are designated as paralectotypes.

P. scabridus: 1956, p. 24. The Schedl collection contains 4 specimens labelled "Type" (2) and "paratype" (2) and the Schwerdtfeger collection contains 3 specimens, 1 of which is labelled "cotype". I hereby designate the female in the Schedl collec-

tion as the lectotype. It is labelled: Quezaltenango, Pin. rud.; 6-9-195_, 2350m, Guatemala, leg. F. Schwerdtfeger/[female sign]/Type *Pityophthorus scabridus* Schedl/LECTOTYPE *Pityophthorus scabridus* Schedl, D. E. Bright, 1976. The remaining specimens have been labelled as paralectotypes.

P. schwerdtfegeri: 1956, p. 28. Originally described in *Conophthorus*. Two specimens from the Schedl collection labelled "Type" were seen. The first of these is hereby designated the lectotype. It bears the following labels: Rancho Alegre, Guatemala, 23-IX-195_, F. Schwerdtfeger/Type *Conophthorus schwerdtfegeri* Schedl/[male sign]/LECTOTYPE *Conophthorus schwerdtfegeri* Schedl, D. E. Bright, 1975. The other specimen, a female, bears my paralectotype label.

P. subsimilis: 1956, p. 25. Two specimens from the Schedl collection, both labelled "Type", and 4 specimens from the Schwerdtfeger collection, 1 labelled as a cotype, were seen. I hereby designate the female in the Schedl collection as lectotype. It is labelled: Guatem. ciudad, Guatemala, Pin. tenuif., 25-8-1951, leg F. Schwerdtfeger/[female sign]/43/TYPE *Pityophthorus subsimilis* Schedl/LECTOTYPE *Pityophthorus subsimilis* Schedl, D. E. Bright, 1976. The remaining 5 specimens are labelled as paralectotypes.

Species described by C. Zimmermann

Two species now placed in *Pityophthorus* were described by Zimmermann. Both were described in *Crypturgus*. All type material is in the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts.

P. pulicarius: 1868, p. 144. No type locality is given in the original description of this species and it is not known how many specimens of this species were before Zimmermann at the time of its description. Four specimens have been seen that could have formed part or all of the type series. The lectotype, hereby designated, is a specimen from the LeConte collection and is labelled: small green square/Type 1001/*C. pulicarius* Zimm./LECTOTYPE *Crypturgus pulicarius* Zimmermann, D. E. Bright, 1976. The remaining 3 specimens are left with only the original labels.

The "Type 1001" label on the lectotype was probably put on at some later time and could be disregarded. However, this specimen is the one that other authors have used as the basis of the species, and it is best that the current concept of this species be maintained.

P. pullus: 1868, p. 143. The number of specimens in the type series was not recorded by Zimmermann. I am not absolutely certain that the specimen designated below as the lectotype actually is the original specimen or was part of the original series. No specimens of *P. pullus* from South Carolina (the type locality) are in the LeConte collection and the general collection of the MCZ contains only this 1 specimen from South Carolina. This one specimen could have been part of Zimmermann's collection that came to the MCZ via Crotch, not given directly to LeConte as were many of Zimmermann's other specimens. The evidence strongly suggests that this specimen is actually from Zimmermann since similarly labelled specimens of Zimmermann's other species are in the general collection. In order to stabilize nomenclature, this specimen is hereby designated lectotype. It is labelled: S.C./*Cryphalus pullus* Zimm./yellow square of paper/LECTOTYPE *Crypturgus pullus* Zimmermann, D. E. Bright, 1976.

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